

REMARKS

Claims 1-24 are pending in the application. Claims 22-24 are indicated as allowable.

Claims 1, 2, 15, 16, 18 have been amended to clarify applicant's claimed invention.

Claims 25-28 have been newly added. No new matter is entered.

Claims 1-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lyons et al. (Lyons) in view of Baldwin et al. (Baldwin).

Lyons describes an ATM processor filling payloads of ATM cells with AAL-2 packets. Whenever the payload of an ATM cell is filled up or a timer expires the ATM cell is placed into a transmit buffer.

Column 2 lines 40-67 in Lyons describes segmenting a 'packet' such that each segment fits into an ATM cell. This segmentation is for "larger application" packets. (col. 2, lines 57-61). However it is respectfully submitted that unlike the claimed invention, Lyons does not handle a short-packet which has a length greater than a length L bytes, where L bytes can be accommodated in one ATM cell. In Lyons the LLC packets 60 correspond to the short-packets of the claimed invention.

Lyons also teaches away from applicant's claimed invention because in col. 3 lines 27-31, Lyons describes "This necessitates use of an AAL for small packets such as AAL-2. The later provide efficient transport of small native packets over ATM networks..." This is not the segmentation of "larger native mode packets into small units" as described in col. 2, lines 62-67.

Lyons does not teach the LLC has a length greater than a length L bytes, for example L= 48 bytes. Further Lyons does not teach splitting an LLC packet of which length is greater than the length L, into two short-packet portions so as to be accommodated respectively in first and second ATM cells.

Lyons describes, for example Figs. 1 and 4 and descriptions from column 5, line 35 to column 6, line 19, an AAL-2/SSCS processor 130 creates LLC packets (short packets) and inputs them to an ATM processor 135. The ATM processor 135 creates ATM cells 50-52 by mapping LLC packets 60 in the payload portions of AAL-2 cells and sends the AAL-2 cells 50-52 one by one to an ATM network.

Therefore, in contrast to Applicant's claimed invention, Lyons does not suggest a short-packet which has a length greater than a length L bytes, where L bytes can be accommodated in one ATM cell.

Further, Lyons does not teach splitting a short-packet into short-packet portions so as to be accommodated respectively in first and second ATM cells unlike the claimed invention. Baldwin fails to describe any method or apparatus of accommodating a short-packet that has a length greater than the length L bytes.

Baldwin describes short packets with an LI field representing the packet lengths. According to the ATM switch of Baldwin, a short packet is extracted from an ATM cell which is related to a certain ATM VCC, next an ATM cell related to another ATM VCC is created using the extracted short-packet, and then the created ATM cell is directed to the predetermined direction.

Additionally, Baldwin does not teach splitting a short-packet of which length is greater than the length L, into two short-packet portions so as to be accommodated respectively in first and second ATM cells.

For at least the foregoing reasons, it is respectfully submitted that neither Lyons nor Baldwin teaches the distinguishing features of the claimed invention, which include:

means for judging the length of the short packet is larger than length L bytes can be accommodated in one ATM cell;

means for splitting a short packet, which has a length greater than the length L bytes into short-packets portions so as to be accommodated respectively in first and second ATM cells, and

cell creation means for accommodating significant data containing one of the short-packet portions and short-packet length information in a payload area of the first ATM cell, accommodating significant data including another short-packet portion in a payload area of the second ATM cell, and inputting the first and second ATM cells to an ATM switch.

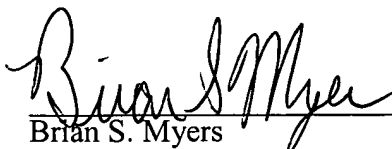
Further, neither Lyons nor Baldwin teaches the feature of the claimed invention that is restoration means for extracting short-packet portions accommodated in respective ones of the first and second ATM cells upon referring to said short-packet length information and restoring the original short-packet having a length greater than L bytes, and sending the original short-packet to a line in an AAL Type 2 cell format.

The claimed invention provides the advantage of switching a short-packet with a length exceeding 48 bytes by splitting the short-packet and restoring correctly the original short-packet of greater than 48 bytes by using short-packet length information contained in the ATM cell.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,


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